

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 2003203907
PUBLICATION DATE : 18-07-03

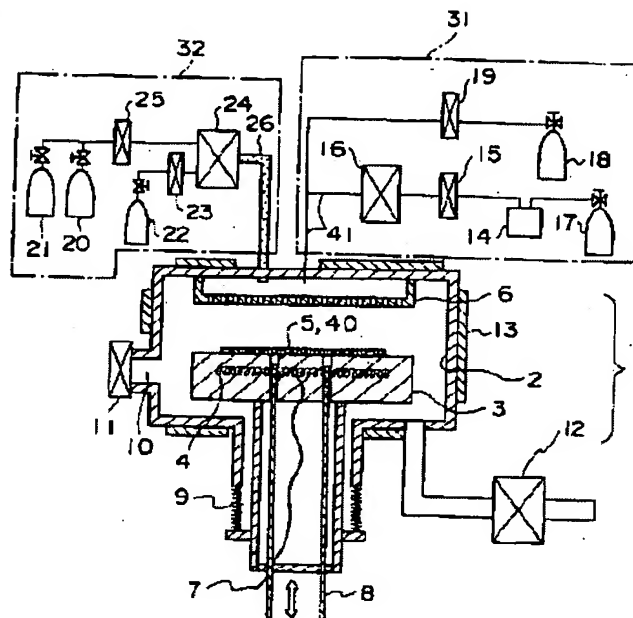
APPLICATION DATE : 07-01-02
APPLICATION NUMBER : 2002000217

APPLICANT : HITACHI KOKUSAI ELECTRIC INC;

INVENTOR : ASAI MASAYUKI;

INT.CL. : H01L 21/31 C23C 16/44

TITLE : CVD SYSTEM AND CLEANING METHOD THEREFOR



1 : 反応室 2 : 内壁面 3 : サセブタ 5 : S i ウエハ 12 : 真空ポンプ
14 : 液体原料 15 : 液体マスフローコントローラ 16 : 気化器
17 : Heガス 18 : O₂ガス 19, 23, 25 : マスフローコントローラ
20 : Cl₂ガス 21 : H₂ガス 22 : Arガス 24 : リモートプラズマ源
26 : クリーニングガス供給配管 31 : 原料ガス供給部
32 : クリーニングガス供給部 40 : カバーウエハ 41 : 配管

ABSTRACT : PROBLEM TO BE SOLVED: To provide a CVD systems for efficiently removing Ti oxide, Zr oxide, Hf oxide, which are deposited on the inner wall face of a reaction chamber or the composite film of them, and to provide a cleaning method.

SOLUTION: In a cleaning gas supply part 32, chlorine gas containing chlorine, such as Cl₂, BCl₃, HCl, ClF₃ and ClF, is activated and is introduced into the reaction chamber 1. A deposited film is gasified and is removed. Since foreign matters attached to a wafer can be reduced by efficiently removing the deposited film on the inner wall face 2 of the reaction chamber 1, device stop time can be shortened and device operation rate is improved.

COPYRIGHT: (C)2003,JPO